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| Booker T Washington Middle School/ Young Audiences of MD  Arts & Math Integration Workshop• December 2012 | | | | | | | |
| Your Name: MARIA BARBOSA | | | | | Grade 6 | | |
| School Name: **Booker T Washington Middle School** | | | | | | | |
| Lesson Title: **MATH MEETS MONDRIAN 1. How Do Artists and Mathematicians “Paint” Ideas and Supporting Details?** (45-60 min.) | | | | | | | |
| MSC & MDCCSS | **Visual Arts** | **Standard 1.0 Perceiving and Responding: Aesthetic Education**  Students will demonstrate the ability to perceive, [interpret](javascript:openPopupWH('/share/vsc/glossary/visual_arts/interpret_interpretation.html',200,200)), and respond to ideas, experiences, and the [environment](javascript:openPopupWH('/share/vsc/glossary/visual_arts/environment.html',200,200)) through visual [art](javascript:openPopupWH('/share/vsc/glossary/visual_arts/art.html',200,200)).  **Indicator 2.** [Interpret](javascript:openPopupWH('/share/vsc/glossary/visual_arts/interpret_interpretation.html',200,200)) and communicate the meaning of [art works](javascript:openPopupWH('/share/vsc/glossary/visual_arts/artwork_work_of_art.html',200,200))  **Objective 1.** Identify [narrative conventions](javascript:openPopupWH('/share/vsc/glossary/visual_arts/narrative_conventions.html',200,200)) used by [artists](javascript:openPopupWH('/share/vsc/glossary/visual_arts/artists.html',200,200)) in selected artworks.  **Indicator 3.**Analyze the application of the [elements of art](javascript:openPopupWH('/share/vsc/glossary/visual_arts/elements_of_art_elements_of_design.html',200,200)) and [principles of design](javascript:openPopupWH('/share/vsc/glossary/visual_arts/principles_of_design_principles_of_art.html',200,200)) in [artistic exemplars](javascript:openPopupWH('/share/vsc/glossary/visual_arts/artistic_exemplar.html',200,200)) and personal [artworks](javascript:openPopupWH('/share/vsc/glossary/visual_arts/artwork_work_of_art.html',200,200))  **Objective 1.** Identify and [describe](javascript:openPopupWH('/share/vsc/glossary/visual_arts/describe_description.html',200,200)) how [artists](javascript:openPopupWH('/share/vsc/glossary/visual_arts/artists.html',200,200)) use [design concepts](javascript:openPopupWH('/share/vsc/glossary/visual_arts/design_concepts.html',200,200)) to organize the [elements of art](javascript:openPopupWH('/share/vsc/glossary/visual_arts/elements_of_art_elements_of_design.html',200,200)) and [principles of design](javascript:openPopupWH('/share/vsc/glossary/visual_arts/principles_of_design_principles_of_art.html',200,200)) to convey ideas, thoughts, and feelings. | | | | | |
| **Mathematics** | **DOMAIN**: The Number System  **Cluster:** Compute fluently with multi-digit numbers and find common factors and multiples  **6.NS.3** Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. | | | | | |
|  |  | KNOWLEDGE OBJECTIVES  (To Know) | SKILL OBJECTIVES  (To Be Able To Do) | FORMATIVE ASSESSMENT | | SUMATIVE ASSESSMENT | 21ST CENTURY SKILLS |
| LESSON PLAN | **Fine Arts** | The elements of art  The principles of design  That the elements of art and principles of design are used to represent ideas and supporting details  How artists “paint” ideas and supporting details | Identify The elements of art and principles of design.  Analyze how the elements of art and principals of design are used to represent ideas and supporting details in works of art | **Pre-survey –** quick poll of previous knowledge (post-it and photo camera)  **Informal assessment** – observation and documentation of small-group and whole- classroom discussion  **Constructed responses** on protocol and exit ticket | | **Rubric**  **Performance based Task –** Product, collages  **Post-survey –** quick poll of acquired knowledge (post-it and photo camera)  **Exit Ticket** | • Critical thinking and problem solving  • Collaboration, teamwork, and leadership  • Communication  • Creativity and Innovation |
| **Mathematics** | What is a multiplicand, multiplier (factors) and product  One model of multiplication is repeated addition  Another model of multiplication is the “Area Model”  Place Value – the value of each digit – depends upon the position of the digit in the number  The value of each place is ten times the value of the place to its right  The properties of multiplication: commutative and dissociative  Vedic Multiplication  How mathematicians “paint” ideas and supporting details. | Multiply two two-digit numbers  Use strategies based on place value  Visually represent how the value of each place is ten times the value of the place to its right  Identify, and communicate orally, visually and in written form the place value for each digit in whole numbers  Use strategies based on the properties of operations  Use lines and line intersections (Vedic strategy) to visualize the multiplication of two two-digit numbers  Use the Vedic strategy for multiplication to represent place value and properties of the operation |